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QUARTERLY REPORT #6

March 21, 1979

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APPLICATIONS OF HCM DATA

TO

SOIL MOISTURE SNOW

AND

ESTUARINE CURRENT STUDIES

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(E79-10174) APPLICATIONS OF HCM DATA TO  
SOIL MOISTURE SNOW AND ESTUARINE CURRENT  
STUDIES (National Oceanic and Atmospheric  
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Identification Number - HCM-045

P.O. #S-40229B

A. Problems

During the period 12/7/78 through 3/21/79 only one set (IR and visible) of useful images (10/2/78) were received. The area covered our Potomac test site. Tapes were ordered for the scene. The continued paucity of data has severely restricted progress in all areas of our study.

The uncertain future of the HCMR jeopardizes the snow and soil moisture portions of the study by precluding both the spring snowmelt season and the acquiring of thermal IR data over bare fields near field capacity. TIROS-N data could possibly be used as a substitute but suffers from poorer resolution and from lack of computer programs for processing the data.

B. Accomplishments

Plans have been initiated to install a data collection platform on the recently installed RSG $\frac{1}{2}$  soil moisture/snow density gauge at Luverne, Minnesota. Completion is hoped for by October 1979. The gauge could not be calibrated at installation (12/19 - 20/78) because of frozen ground.

C. Significant Results

None.

D. Publications

None.

E. Recommendations

Solve the NASA/HCMR data management problem.

F. Funds Expended to Date

|                  |        |
|------------------|--------|
| Balance of funds | \$3.1K |
|------------------|--------|

|                   |            |
|-------------------|------------|
| Spent this period | <u>1.6</u> |
|-------------------|------------|

|                 |        |
|-----------------|--------|
| Funds remaining | \$1.5K |
|-----------------|--------|

G. Data Utility

Positive transparencies have been received for 10/2/78 and are of good quality. Tapes have been ordered of this scene (ID AA015919250).

H. Future Plans

Pending receipt of requested tapes and additional imagery, we are planning collection of early spring soil samples to correspond with anticipated HCMM overpasses (if the HCMR is still functioning). Field data will also be acquired at the Cranberry Lake test site to match HCMM overpasses.

